

REMARKS

Claims 1, 3, 5, and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by JP 63-116904, hereinafter JP ‘904. In response, Applicants amended independent claims 1 and 5 to clarify that the reformed portion is formed by causing plastic deformation, and respectfully traverse the rejection.

FIG. 1(a) in JP ‘904 merely shows an intermediate state of forming a carcass (reinforcement material), which is shown in Fig. 1(c). FIG. 1(a) fails show the ultimate construction of the carcass. FIG. 1 of JP ‘904 illustrates straight line portions in the loops located at the ends of coil portions. However, these straight line portions are only necessary during the carcass processing and are not those which are formed by causing plastic deformation. The straight line portions shown in FIG. 1 of JP ‘904 do not correspond to a reformed portion of the present invention.

Furthermore, there is no straight line portion among plural loops arranged in the central portions of the coils in FIG. 1 of JP ‘904. Both width ends 1a and 1b of the coils in FIG. 1(a) of JP ‘904 are turned up so as to wrap the bead wires 2a and 2b. FIG. 1(b) shows the turned up portions and further illustrates that there is no straight line portion. Moreover, JP ‘904 fails to disclose or suggest any straight line portion which is formed by causing plastic deformation, as now recited in the amended claims. For these reasons, withdrawal of the §102(b) rejection of claims 1, 3, 5, and 14 based on JP ‘904 is respectfully requested.

Claims 1, 3, and 5 stand rejected under 35 U.S.C. §102(b) as being anticipated by Adams (U.S. Patent No. 1,897,411). Applicants respectfully traverse the rejection

because Adams fails to disclose or suggest a reformed portion being formed by causing plastic deformation.

Adams has a triangular or a D-shape loop portion, but no circular loop portion is disclosed or suggested. In the triangular or D-shape portion, stress tends to easily concentrate on a corner portion. Therefore, in Adams the durability largely decreases as compared to a circular loop portion like that of the present invention. For this reason, the circular portion and semi-circular loop portion are not equivalent of each other in characteristics and features.

Additionally, the straight line portions of the coils illustrated in FIG. 3 of Adams are not those which are formed by causing plastic deformation. Adams manufactures a coil spring by causing plastic deformation of a straight wire. Adams causes plastic deformation of the parts except for the straight line portions, and accordingly, there is no portion identical in Adams to the reformed portion of the present invention. In addition to these differences, Applicants respectfully submit that the technical areas of design of a coil spring and a reinforcement material for rubber differ from each other with respect to the technical fields. Therefore, one skilled in the art would not look to Adams to achieve the features of the present invention.

Since Adams fails to disclose or suggest a reinforcement material for rubber having a flat coil shape and a reformed portion with the curvature smaller than that of the circular loop portions, with the reformed portion being formed by causing plastic

deformation, withdrawal of the §102(b) rejection of claims 1, 3, and 5 is respectfully requested.

Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over JP '904 in view of Sidles et al. (U.S. Patent No. 3,455,100). Applicants traverse the rejection for the reasons recited above with respect to the rejection of claim 1, and also because the cited references fail to disclose or suggest a reinforcement material for rubber which has a low-stress elongation at a load of 10N of 80% or above.

The Examiner acknowledges that JP '904 fails to disclose or suggest a low-stress elongation at a load of 10N of 80% or above. However, the Examiner asserts that Sidles teaches this feature. Applicants respectfully traverse this statement of the Examiner.

The elongation E of the cord in Sidles merely refers to a ratio of the cord length l_f to an original cord length l_o as defined in the equation at col. 4, line 5 of Sidles. Accordingly, since the equation defines the extension of the cord at a modulus transition point, and not a tensile load of 10N, for at least this reason, the rejection is improper, and should be withdrawn.

Additionally, as shown in the table in col. 5 of Sidles and also FIG. 4, assuming *arguendo* that the data could be applied, the data does not provide any support for the 80% or above elongation at a load of 10N. The data of Sidles indicates that at 10N, which corresponds to approximately 7.4 foot-pounds, that the elongation % would be about 55%. Applicants respectfully submits that Sidles fails to disclose or suggest the feature of a low-

stress elongation at load of 10N of 80% or above. For this reason, withdrawal of the §103(a) rejection of claim 4 is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge any additional fees which may be required to this Application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By 
Joseph P. Fox
Registration No. 41,760

April 8, 2009
300 South Wacker Drive
Suite 2500
Chicago, Illinois 60606
Telephone: 312.360.0080
Facsimile: 312.360.9315
Customer No. 24978